



FACSIMILE TRANSMITTAL SHEET

Date: 2/24/94To: Douglas Stuart, Bureau Chief Location: NSDEPE/TRENTON, N. S.Fax Number: 1-609-633-1454From: Bill Nosic Location: Hexcel Corp./Pleasanton, CAFax Number: 1-510-734-9285Number of pages (including transmittal sheet): 8If you should have any questions concerning this transmittal, please call
(510) 847-9500, Ext. 4482.Comments: Original to follow via "certified
receipt requested" mail delivery.

HEXCEL

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pls advise
after Joe's review
TS

February 24, 1994

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INDUSTRIAL
SITE EVALUATION
SECTION

Douglas Stuart
Bureau Chief
Bureau of Environmental Evaluation
And Clean Up Responsibility Assessment
CN-028
New Jersey Department of Environmental Protection And Energy
Trenton, New Jersey 08625-0028

Re: *Remedial Activities at the
former Hexcel; Lodi, New Jersey Facility
ECRA/ISRA 86009*

Dear Mr. Stuart:

I want to take this opportunity to thank you and your staff for finding the time to meet with us on February 10th; it was a very productive meeting.

Pursuant to our commitment at that meeting, attached please find Hexcel's proposed work element schedule and associated cost estimations for the groundwater and soils remediation at Lodi. The schedule initiates upon approval by Fine Organics (and the necessary regulatory authorities) to temporarily use their sewer for disposal of the treated groundwater. Hexcel is pursuing an agreement with Fine Organics which we expect to have in 4-6 weeks.

Referring to our proposal, the lower range of costs reflect the reasonably anticipated costs, and the upper range is our estimation of costs in the event of a series of circumstances that are less than probable.

It should be emphasized that these estimations are based on our current understanding of the site. As you know the very nature of subsurface contamination and clean up involves some technical assumptions based on modeling, etc., that are never totally reliable. Therefore, the cost estimations presented are subject to revision, up or down, as the clean up progresses, and our understanding of the site is refined.

Douglas Stuart
Bureau Chief
Bureau of Environmental Evaluation
And Clean Up Responsibility Assessment
February 23, 1994
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Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. William Nosil".

A. William Nosil
Corporate Environmental Engineering Manager

Attachments

AWN:sfv

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Lodi, New Jersey Work Elements

For the purpose of this estimation costs and tasks are grouped into categories which are presented graphically in a five year schedule in Table 1. Cost estimations are presented in Table 2.

Group I. Discharge Permit Issues

This item includes finalization of design and submittal of Permit Applications for the Sewer Connection and Stream Encroachment Permits; obtaining approvals required by the Borough of Lodi and the Passaic Valley Sewerage Commissioners (PVSC); obtaining Sewer Connection and Stream Encroachment Permits from the New Jersey Department of Environmental Protection and Energy (NJDEPE); obtaining PVSC Discharge Permit; and, construction/installation of the new sewer line, and engineering oversight. This item is addressed in the first year.

Group II. Air Permit Issues

Included in this group of items is the operation of the groundwater recovery system for one day and obtaining influent/effluent sampling results and the assessment of these results to determine if acid gas controls are required on the air effluent from the catalytic oxidizer. If necessary, acid gas controls on the catalytic oxidizer will be designed, specified and installed, and a stack test will be performed as required by the permit. These items are addressed in the first year.

Additionally, assuming that hydraulic control is achieved at 7,200 gpd, and that the treatment system is providing acceptable contaminant removal, Continuous Emissions Monitoring (CEMs) will be addressed. This item will include the necessary permit negotiation, design and installation of the CEMs. The cost includes renegotiating the various other outstanding issues associated with the existing air permit, and is reflected in the first year also and are reflected in the upper cost estimation.

Group III. System Start-up Activities

The first two items in this group include one full week of running the recovery system continuously, and the treatment system 8-10 hours per day at the design rate of 15 gpm. During this one week test run, analyses will be performed to determine whether the groundwater recovery system is able to achieve hydraulic control at the design 7,200 gpd recovery rate. The effluent generated during this run will be placed in tanker trucks, sampled, and assuming sample results meet applicable requirements, will be disposed of into the sewer. Also included herein is the cost for performing treatment system efficiency testing and fine tuning the recovery rates. This item is addressed in the first year.

The next three items in Group III address possible modifications which may be necessary for efficient contaminant removal by the groundwater recovery system. This item includes the preparation and submittal of a Treatment Works Approval (TWA) Permit application, obtaining the TWA Permit from the NJDEPE, design/specify/install required modifications including installation of a pump in MW-8 for DNAPL recovery, hard piping the DNAPL tank to the treatment system, providing pumps for influent/effluent tanks, designing and installing a moisture knockout can prior to the catalytic oxidizer, repair of carbon units, design and installation of scaffolding over tanks, treatment system upgrades and other miscellaneous items required prior to full scale start up. This cost is reflected in the first year.

Additionally, included in this item is an estimated cost for the providing storage tanks with appropriate controls and plumbing to act as a "fail safe" system to ensure that all effluent permit parameters are met prior to discharge. This cost will be significantly reduced if the "fail safe" operation is only required for the basement seepage waste stream. The cost covers the design and installation of these tanks, and is addressed in the second year.

The last item in this group addresses the full scale operation of the recovery system and routine groundwater monitoring. Full scale operations and groundwater monitoring involve the following activities which are included in the cost estimate for this item:

- Labor and expenses associated with providing a licensed treatment plant operator to assist and oversee a full time treatment system operator retained by Hexcel.
- Although the NJPDES Permit is no longer in effect, Hexcel will propose appropriate testing protocols for the PVSC Permit. Therefore, discharge sampling requirements have been projected on the basis of NJPDES Permit. The sampling assumed for the first half of the year is more extensive than the second half of the first year since it is expected that the PVSC will not require such extensive sampling once the system has been operating satisfactorily for an extended time period. This cost assumes that all required sampling will be performed by Hexcel's treatment system operator and that satisfactory full scale operation of the groundwater recovery/treatment system will have commenced. This item is addressed each year.
- Preparation of the quarterly progress reports on site remediation activities as required by the NJDEPE. This item is addressed for all five years.
- Miscellaneous equipment and materials necessary for the operation and maintenance of the treatment system. This includes coagulant polymers, bag filters, cartridge filters, personal protection equipment, tools skimmers, repairs and other items which are necessary for the operation of the treatment system. This item is addressed each year.
- Based on start up studies (7 day) Hexcel will propose a testing schedule for the twenty seven wells through the first half of the year and thirteen wells thereafter. The cost estimation presented is for all 5 years.
- Hexcel will provide labor for the collection of groundwater/LNAPL/DNAPL levels and recovery of the DNAPLs on a monthly basis.

Waste disposal costs are included in the full scale operation and groundwater monitoring cost estimate. The cost is dependent upon the reduction of sludge via dewatering or other alternatives. Wastes will be disposed of every ninety days. The wastes anticipated: sludge, LNAPL, DNAPL, filters and PPE, and activated carbon. Also included are carbon replacement costs with carbon being disposed of as a non-hazardous waste, since it is assumed that the treatment system will have been upgraded to successfully remove PCBs from the waste stream prior to carbon polishing. A cost estimation of 50 to 100K year is provided.

Group IV. Pilot Scale Studies of Soils Remedial Alternatives

The items addressed in this group include the implementation and assessment of the results from a soil gas survey to be performed at the site; preparation of an air sparging/soil vapor extraction (SVE) pilot test work plan; NJDEPE review and approval; preparation of air and stream encroachment permits; construction/operation/monitoring of a pilot scale sparging/SVE system; and, evaluation of pilot test results.

These activities are addressed in the first and second years. As noted on Tables 1 and 2, month 14 of the Soils Remedial Investigation/Remedial Action Workplan Schedule (at which point construction of the pilot scale sparging/SVE system begins), coincides with the commencement of routine full scale operation of the groundwater system.

Group V. Sewer line Cleaning/Abandonment

Cleanout of the industrial sewer line which is potentially contaminated with PCBs is included herein. It is assumed that the sewer line is half full of contaminated sludge/debris. This item includes cleanout by a subcontractor, disposal, sampling and oversight. This is addressed in the second year.

Group VI. Design/Specify/Permit/Install/Operate Air Sparging/Soil Vapor Extraction System

This item includes treatment of the groundwater/soils using an air sparging/SVE system, operation and maintenance for one year, sampling and engineering. This item also includes the excavation and disposal of soils contaminated with total organic contaminants (TOCs) which cannot be treated effectively using this remedial method. Hexcel estimates approximately 500 cubic yards would need to be disposed of offsite. This item is addressed in the third year with subsequent operation and maintenance costs of the sparge/SVE system included for the fourth and fifth years.

Please understand that these cost estimates are based upon information available to date and our understanding of current NJDEPE requirements.

TABLE 1: GROUNDWATER REMEDIATION

TASK	Time in Weeks: After Approval by Fine Organic													
	2	4	6	8	10	12	14	16	18	20	22	24	26	28
Discharge Permit Issues														
1. Finalization of design and submittal of Permit Applications for Sewer Connection and Stream Encroachment.														
2. Obtain approval from Borough of Lodi														
3. Obtain approval from the Passaic Valley Sewer Commissioners (PVSC)														
4. Obtain Sewer Connection and Stream Encroachment Permits.														
5. Obtain PVSC Discharge Permit														
6. Construct new sewerline.														
Air Permit Issues														
1. Operate groundwater recovery system for one day and obtain influent/effluent sampling results.														
2. Design/specify/install acid gas controls (if required) on Catalytic Oxidizer.														
3. Obtain modifications to Air Permit and install Continuous Emissions Monitoring.														
System Start-up Activities														
1. Operate Groundwater Recovery System at 7,200 gpd for 1 week and obtain influent/effluent sampling results.														
2. Measure drawdowns and assess hydraulic performance.														
3. Assess contaminant removal efficiency at previously untested design capacity of 15.gpm.														
4. Make necessary modifications to Treatment System."														
5. Design/specify/install effluent holding tanks for failsafe operations.														
6. Start full scale operations and routine groundwater monitoring.														

*Note: The first 20 weeks of this task are for obtaining Treatment Works Approval Modification from the NJDEPE, the Borough of Lodi and the to the Groundwater Recovery System.

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TABLE 2

LODI PROJECT-COST ESTIMATE

	Year 1	Year 2	Year 3	Year 4	Year 5
I. Discharge Permit Issues	\$26 ¹	--	--	--	--
II. Air Permit Issues (Including Acid Gas Control)	\$150-\$260	--	--	--	--
III. System Start-up Activities					
A. Operation and Performance Assessment	\$50	--	--	--	--
B. Modifications to System	\$50-\$100	\$50-\$145	--	--	--
C. Full Scale Operation ²	\$300-\$325	\$200-\$275	\$200	\$200	\$200
D. Hazardous Waste disposal	\$50-\$100	\$50-\$100	\$50-\$75	\$50-\$75	\$50
IV. Pilot Scale Studies of Soils Remedial Alternative	\$165	\$450-\$500		--	--
V. Sewer line Cleaning/Abandonment		\$375		--	--
VI. Sparge/SVE System (Design/Specify/Permit/Install/ Operate)			\$1,000		
				\$50-\$75	\$50-\$75
	\$791-1026	\$1125-1395	\$1250-1275	\$ 300-350	\$ 300-325
TOTAL 3.766 Million 4.371 Million					

[1] Estimates expressed in Thousands

[2] Does not include the cost for a full-time operator.

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